MSc IN PLANT SCIENCES WITH EMPHASIS IN FOOD SECURITY

ALL YOU NEED TO KNOW

Registration is open for: Spring Semester 2022

Application Deadline: January 20st, 2022
Overview

The mission of the Plant Biology Track with emphasis in Food Security and Safety is to educate and train students, to understand how plants function and interact with their growing environment at different levels of organization, from the molecular to the eco-physiological level and the relation to food security. The program will allow to gain knowledge of the methodology used in plant molecular genetics and cell biological issues; and to study how plants interact with other organisms and adapt to environmental changes. Moreover, in view of the challenges of sustainably feeding our world growing population, the program introduces relevant courses on food security emphasizing Sustainability.

This innovative interdisciplinary program is open to outstanding students worldwide interested in obtaining a non-thesis MSc in Plant Sciences with an emphasis in Food Security and Safety. The program provides the students with academic knowledge with leading faculty, opportunities to gain practical skills and the chance to be a part of creating a sustainable future.

The program requires that every student will perform a research project which is an integral part of program. Research projects can be done upon coordination and consent of any of the researchers at the Faculty of Life Sciences. Our students receive an excellent research training in plant molecular genetics, biochemistry, cell biology, ecology and bioinformatics that will allow them to pursue a PhD degree following the fulfillment of an MSc thesis (see below) and enter an academic career. Alternatively, graduates are also very well equipped to take on positions in the governmental sector as policy makers or at the Hi-tech industrial sector.

Continuing to a Research Thesis Track

Selected excelling students who are interested in pursuing a thesis (with no additional tuition), may do so after completion of the requirements of the theoretical part on the first year. The duration of the program is two years. A research thesis program will be conducted over the second year.

*Students who are interested in the thesis-track MSc Program in Plant Sciences must first find an advisor.*
Curriculum

TOTAL 36 CREDITS

Mandatory Courses
4 credits

a. Safety Course - mandatory during the first year (no credit)
b. Group research Seminar (2 credits)
c. Student Seminar - School of Plant Sciences (2 credits)

Additional courses

One out of the following courses:

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Option 2</th>
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<tbody>
<tr>
<td>Biostatistics (4 credits)</td>
<td>Alternatively - Principals of experimental statistics (5 credits)</td>
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<tr>
<td>Advance topics in Plant Biology A (2 credits)</td>
<td>Advance topics in Plant Biology B (2 credits)</td>
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<tr>
<td>Research Project, including a written report (6 credit)</td>
<td>Research Project, including a written report (6 credit)</td>
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**"Advance in Plant Biology" courses are provided in alternating years

Elective Courses

In order to add "Food Security" emphasis to the transcript, the student must take at least 1/4 of the elective courses in Food Security.

<table>
<thead>
<tr>
<th>Title of Course</th>
<th>Lecturer(s)</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Cultivated and Plant-Based Meat</td>
<td>Prof. Nir Ohad \ Dr. Nachman Ifach</td>
<td>2</td>
</tr>
<tr>
<td>Approaches for Formulation of plant protection</td>
<td>Dr. Nir Sade \ Dr. Roy Weinblat</td>
<td>2</td>
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<tr>
<td>Scientific Writing</td>
<td>Ms. Harriet Brand-Rubin</td>
<td>4</td>
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<tr>
<td>Introduction to food security (Every Other Year)</td>
<td>Prof. Nir Ohad</td>
<td>3</td>
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<tr>
<td>Desert Agriculture (Volcani Center)</td>
<td>Dr. Arnon Dag \ Dr. Uri Velmiyahu</td>
<td>3</td>
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<tr>
<td>Post-Harvest</td>
<td>Prof. Dov Bernard Prusky</td>
<td>2</td>
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<tr>
<td>Food, environment and sustainability</td>
<td>Dr. Ulansky Hagit</td>
<td>2</td>
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<tr>
<td>Environmentalism: Ethical and Cultural Perspectives</td>
<td>Dr. Jeremy Benstein</td>
<td>2</td>
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<tr>
<td>From Plant domestication to molecular breeding: a journey through science, culture and society</td>
<td>Prof. Arie Alman</td>
<td>2</td>
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<tr>
<td>Bioethics and biotechnology</td>
<td>Prof. Bernard Epel</td>
<td>3</td>
</tr>
<tr>
<td>Topics in present day Microbiology</td>
<td>Prof. Gil Segal</td>
<td>1</td>
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<tr>
<td>Macrocology</td>
<td>Prof. Shai Meiri</td>
<td>3</td>
</tr>
<tr>
<td>Topics in present day genetics</td>
<td>Prof. Martin Kupiec</td>
<td>2</td>
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<tr>
<td>Advanced cell biology: Cellular responses to stress in health diseases</td>
<td>Prof. Ehrlich Marcello</td>
<td>2</td>
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<tr>
<td>Tools in bioinformatics</td>
<td>Ms. Halabi Keren</td>
<td>2</td>
</tr>
<tr>
<td>Methods in Molecular and Cell biology</td>
<td>Prof. Uri Ashery \ Prof. Gerardo Lederkremer, Dr. Adi Barzel</td>
<td>2</td>
</tr>
<tr>
<td>Formulation Approaches in crops protection</td>
<td>Dr. Nir Sade \ Dr. Roy Weinblat</td>
<td>2</td>
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<tr>
<td>From the DNA to the Population</td>
<td>Prof. Elder Avigdor Dr. Wayne Rival, Prof. Copaia Martin, Dr. Stern Adi</td>
<td>3</td>
</tr>
<tr>
<td>Ecology of climate change</td>
<td>Prof. Marcello Sternberg</td>
<td>3</td>
</tr>
<tr>
<td>Plant ecology</td>
<td>Dr. Michal Gruntman</td>
<td>2</td>
</tr>
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Admissions Requirements

Bachelor's degree with a GPA of at least 3.0 on a 4.0 scale or 80 on a scale of 100.

International Applicants

All applicants applying to TAU International English-speaking programs who are from non-English speaking countries or are non-native speakers of English must provide proof of English proficiency as part of the application requirements. To view specific instructions for completing this step, please click here.

Israeli Applicants

Applicants with Israeli citizenship, whether by birth or immigration (Olim), are eligible to apply to the program under the same criteria as international applicants. Israeli Applicants need to apply on the Israeli registration portal. Registration will open on December 1st 2021.

Costs and Funding

International Applicants

Tuition for International students is $11,300 includes:
- Student services
- Membership in the Student Union
- Library services
- Social events
- Cultural activities
- Field trips

Health insurance not included. Please note that all students must be covered by an Israeli medical insurance while studying in Israel.

Israeli Applicants

The basic tuition fee for Israeli citizens is 200% according to TAU's tuition regulations for MA. Tuition for 2021-2022 is to be determined according to the CPI rate of June 2021.
For reference listed here are the tuition and fees for the 2020-21 academic year.
Housing

There is a limited amount of on-campus housing available for international graduate students, with the majority preferring to live in rented apartments throughout Tel Aviv-Yafo. For more information on housing please click here.

Scholarships and Funding

TAU International is committed to making education accessible to all students, regardless of their financial backgrounds, and several sources of funding are available, including need-based tuition assistance, delayed payment plans, and external scholarships. TAU also participates in U.S. federal student loan programs. See more information on the TAU International website.

Students who continue to the research track will be eligible for scholarship.

Application Instructions

Step 1: Online Application

Open your student profile on the TAU International website. Complete the "Personal Profile" and "Application Form" sections.

Israeli Applicants need to apply on the Israeli registration portal.

Pay the $150 (USD) application fee. This may be done at any stage in the application process. *Canadian citizens should submit their application fee through the CFTAU offices. Contact orna@cftau.ca for more information.

Upload a digital passport style photo (white or light background, headshot only, JPEG/JPG format). This photo will be used for your student ID card, and is not used as part of the admissions process.

Upload a scan of your valid passport.

A Medical Form is required for students who wish to join the on-campus gym.
Step 2: Academic Documents

DIPLOMA (GRADUATION CERTIFICATE)
Upload a scanned copy of a diploma from each university level degree awarded to your student profile.

TRANSCRIPT
Mail in official transcripts from each post-secondary school (college or university) you attended. An official transcript includes the stamp and signature of the university, and is not a photocopy or scan. If possible, order a transcript from your university that will be sent directly to the below address.

Professionally certified English translations of each transcript (where applicable) must be included.

Please state the primary language of teaching and examination of the graduated school.

ADDRESS:
Manna Center Program for Food Safety and Security
Attn: Natasha Michlin Rapaport / Prof. Nir Ohad
Britannia Building
Tel Aviv University
Ramat Aviv, Tel Aviv 6997801
ISRAEL

Step 3: Personal Documents

PERSONAL STATEMENT
Upload a personal statement of 400-600 words (no more than 600 words) describing why you have chosen to pursue studies at the MSc in Plant Sciences with Emphasis in Food Security, and in Israel, focusing in particular on the connection between the program and your academic and/or professional experience; your educational and professional aspirations; your anticipated contribution to the program.

LETTERS OF RECOMMENDATION
Two letters of recommendation from individuals who can knowledgeably comment on your ability to successfully complete graduate level study are required. It is highly recommended that at least one letter be submitted by a faculty member of an accredited university.

Follow the instructions for letters of recommendation in the student portal.

CV/RESUME
Please upload a current CV/resume to your student portal profile.
Step 4: English Proficiency Exam

TO SUBMIT YOUR TEST SCORES:
1. UPLOAD A STUDENT COPY OF TOEFL OR IELTS SCORES TO YOUR STUDENT PROFILE.
2. Request official copies of your scores to be sent to TAU International. The Tel Aviv University code is 7704.

Step 5: Review Applicant Checklist

Please review the following checklist to confirm that you have submitted the necessary documents to apply for the program.
Student portal application / Israeli Applicants on the Israeli registration portal
- Diploma
- Official transcript
- Personal statement
- 2 letters of recommendation
- English language proficiency scores
- Passport style photo
- Scan of valid passport
- $150 USD application fee
- Medical Form
- CV/Resume

Please note that applications will be processed when the application is complete and the $150 USD application fee has been paid.

Applicants who would like more information about the status of their application may email foodsecurity@tauex.tau.ac.il

GOOD LUCK